

## Manual Of Spatial Preservation Of Settlements For Ecotourism Development In Tenganan Pegringsingan Village, Karangasem-Bali

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### ABSTRACT

The long-term goal of Leading Applied Research of Higher Education is the manual of spatial preservation of settlements for ecotourism development in Tenganan Pegringsingan Village, Karangasem-Bali as a tourist village. This study is expected to solve the issue relevant to the needs of rural communities in the long term, which is the preservation of the architecture of the settlements, especially residential homes, as rural settlements continue to grow as time goes by (cultural and technological development). The method used to achieve the goal of this study is the qualitative method with an emphasis on observation, which is closely related to distinct (unique) contextual factors. So, each context should be handled in terms of its context. This study is related to the value system, concept, perception, diversity, uniqueness, local wisdom, and people's belief about something other than themselves. This study is also related to transcendental matters or dual reality that the local community feels and believes in, but hard to explain. The manual of spatial preservation for ecotourism development in the Tenganan Pegringsingan Village is related to the preservation strategy and the responsible party. The strategy is divided into the macro scale (the village) and the micro scale (the residential home). The responsible party is divided into the customary village (*desa adat*) and the administrative village (*desa dinas*). Socialization to the community should be executed as soon as possible by involving the customary village, the administrative village, and a third party.

**Keywords:** preservation, ecotourism, access.

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### I. BACKGROUND OF RESEARCH

According to Honigmann in Koentjaraningrat (1990), there are three forms of culture: a system of ideas/values/norms/regulations, a social system, and a physical system. These three forms become a unified system in which the system of ideas organizes and directs the social system, which results in a physical system. On the contrary, the physical system forms a particular environment that increasingly throws people down from their environment, which may affect the social system and even the system of ideas. Many human ideas and values exist together in society, imbuing it with a soul. Experts in anthropology and sociology call this system cultural system or customs in its plural form.

People noticeably have divided views about the meaning and function of the traditional culture in preserving or conserving the environment. Some people believe traditional culture undermines the efforts of environmental preservation. For

example, they assert that Dayak people's shifting cultivation is the culprit behind the forest fires in East Kalimantan (Lahajir, 2001). Others believe that traditional culture has a positive impact. They assert that the community already has a traditional environmental preservation mechanism, and the community has been protecting its ecology system for thousands of years (Ryan, 1990). The Balinese people have various sets of traditional beliefs, which integrate with Hinduism belief. These traditional beliefs are proven to have a positive influence on environmental preservation.

Whether we realize it or not, Sumarjan in Budiharjo (1989) stated that a work of architecture almost always reflects the culture of the group involved in the process of its creation. At least, it reflects the values they embrace. Thus, if one observes works of architecture belonging to society, one can identify cultural features of that society little by little. However, to identify them, one should also identify other conditions of that society.



## II. METHODOLOGY

The object of this study is the traditional settlement in Tenganan Pegringsingan Village. Tenganan Pegringsingan is one of the ancient villages or mountain villages in East Bali and a part of Manggis District, Karangasem Regency, Bali. The village is 67 kilometers from the provincial capital, or 10 kilometers northeast of the center of Manggis District. It is connected by a paved road and located on a lowland about 70 meters above sea level. The village's rainfall rate is 620 millimeters per year, with a topographic slope of about 20%.

Houses in Tenganan Pegringsingan Village have some unique characteristics. Every family lives in a small yard (150-200 m<sup>2</sup>) lined up to each other. Bale adat is on the side/in front of the communal open space. One house unit has *bale adat/bale buga* (for ceremonies), *bale meten* (where the residents sleep), *bale tengah* (for birth or death ceremonies, receiving guests, or sleeping) / *jineng* (where paddies are stored), *paon* (kitchen), and *teba* (backyard).

This study is strongly related to the observation of value system, concept, perception, diversity, uniqueness, local wisdom, and people's belief about something other than themselves. This study is also related to transcendental matters or dual reality that the local community feels and believes in, but hard to explain. Following the characteristics of the object of the study, the paradigm applied in this study is phenomenology.

The qualitative method (phenomenology) works as follows. This method has a general, flexible design and always develops during the process. It aims to understand meanings, develop a theory, and describe a complex reality. This study uses human instruments (the researchers), notebooks, and a voice recorder. No assistant is required. Qualitative data for this study were collected from participant observation, individual documents, and unstructured and in-depth interviews. A small sample was taken using purposive sampling, continuous analysis, inductive reasoning, and search for a pattern, model, or theme. The proposed design is short and general, with presumed relevant issues and no hypothesis. The focus of the research is often written after the data are collected from the field.

Qualitative research is closely related to unique contextual factors. Thus, each context is handled in terms of its context. Research units in Tenganan Pegringsingan, both at the village scale and the house scale, are expected to produce identification or information about the values or ideas of local wisdom of traditional houses. These values are expected to be developed into a preservation model for residential buildings

influenced by modernization or become tourist attractions.

"Variable" observed at the village scale is the typology of the spatial design, while at the house scale, it is the preservation manual. The object of this study is the traditional settlement in Tenganan Pegringsingan Village. Tenganan Pegringsingan is one of the ancient villages or mountain villages in East Bali and a part of Manggis District, Karangasem Regency, Bali. The village is 67 kilometers from the provincial capital, or 10 kilometers northeast of the center of Manggis District. It is connected by a paved road and located on a lowland about 70 meters above sea level. The village's rainfall rate is 620 millimeters per year, with a topographic slope of about 20%.

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## III. RESULTS AND DISCUSSION

The results of Leading Applied Research of Higher Education, which is titled Manual of Spatial Preservation of Settlements for Ecotourism Development in Tenganan Pegringsingan Village, Karangasem-Bali, underline two main points. These two main points are the preservation strategy and the responsible party. The strategy is divided into the macro scale (the village) and the micro scale (the house). The responsible party is divided into the customary village (*desa adat*) and the administrative village (*desa dinas*).

At the macro scale, Tenganan Pegringsingan owns a considerable number of lands in the three hills, Bukit Kangin, Bukit Kaja, and Bukit Kauh. All of which are far from the center of the village. A means of transportation (a road) on these three hills expedite access. Due to this road, landowners also do not need to reach their farms on foot. However, a road on these hills also has unfortunate consequences. Many cases of theft of forest produce such as woods, crops, sugar palm fibers, old sugar palm leaves (*ron*), young sugar palm leaves (*ambu*), which, previously, should not be sold. Easy access also causes more cultivators to seek a more promising job in the service sector. It results in abandoned cultivated land/soil. However, easy access also affects cultivators' farms, making them bigger and of high quality. Having children who work abroad or work on a cruise ship can also improve a cultivator's farm.

The downside of having a means of transport on the three hills is the challenges in preserving the environment of the village that should be solved. Bukit Kangin and Bukit Kaja become hot spots among tourists for trekking or taking a stroll. They will enjoy the sight of the protected forest/farm in the three hills and the beauty of the village settlements from height. Tourists can enjoy the sight of beautiful terraced rice fields and the life of cultivators, including producers of sugar palm wine (*tuak*) and weavers of *ata* craft. They can see monkeys and the south coast, including Labuhan Amuk and the Port of Padangbai. They can also visit sacred places with megalithic characteristics related to the beginning of Tenganan Pegringsingan Village.

It is necessary to have complete legal tools to regulate the rights, obligations, and sanctions related to managing the potential of protected forests and farms. This potential is also an aspect of ecotourism, which is very interesting to be socialized to travelers to increase their knowledge of locality related to the management of natural resources.

It is also necessary to repair the footpath access to support ecotourism activities, whether by making steps or ramps with local natural materials. It would be better if a rest area is made in some spots, complete with light foods and drinks and local specialties. Tourists can rest and enjoy the snacks while capturing the beauty of the surrounding environment in a photograph (a selfie). Furthermore, ecotourism can improve the welfare of the local people due to their involvement as tourist guides or food and drink sellers. However, access repair should consider the sacred animal, namely the buffaloes. It should not enable the buffaloes to move to the neighboring village.

At the macro scale of village settlement, technological advances, especially concerning transportation in the village, should not change the pattern and material of circulation facilities conspicuously. In 2015, a road was built in the east of the village (between Banjar Pande and the gravesite). Motorbikes can traverse from the neighboring village in the south to the north of the village (Banjar Kestala-Bungaya Village-Bebandem Village) and continue to Amlapura. Easy access may cause local villages to face particular consequences such as becoming a shortcut for neighboring villages, congesting traffic, and endangering children's safety. Also, it may be increasingly easy for buffaloes to go outside the village from 19.00 (7 PM) to 05.00 (5 AM) WITA. Therefore, specific rules are necessary to ensure the safety of the village and inter-village circulation order.

In line with the changing times, more residents own motor vehicles such as cars and motorbikes. However, cars cannot be parked in the house yard. Thus, specific rules are required to use the parking area in the south of the village. Some of the *Bale Banjar* buildings and front yards are used as a garage for motorbikes because the villagers are experiencing difficulty putting motorbikes in their house yards.

A place for disposing and processing waste, especially inorganic waste, is also a problem that should be solved, as it spoils the village's beauty. In general, people are looking for a place for disposing waste closest to their houses without considering the negative impact that arises in terms of visual and soil fertility. From discussions with the sources in the village, there will be source-based waste management soon by involving the *PKK* (the Family Welfare Movement) women.

The village's other utilities that need consideration concerns the supply of clean water. It is evident from the many pipes or hoses scattered around the tap from which people get clean water in the village's open space (*Awangan*) in the west, middle, and east. Visually, this condition can spoil the village's beauty. The discussion also reveals that the hose/pipe for clean water will enter the house soon. The first stage involves the installment of 183 house connections for water supply.

One of the vital factors that make the settlement in the village unique is the buffaloes, the village's sacred animal. They are free to roam the village, eating grass, drinking, resting, sleeping, and defecating. This situation has its charm, successfully attracting many tourists to immortalize it or take a selfie with the buffaloes. Unfortunately, this situation causes some problems for the village. For example, the village will get dirty because of buffalo dung. It also becomes very hard for the locals to grow shrubs outside their yards because the buffaloes keep eating the young leaves. Furthermore, the buffaloes often roam to the neighboring village, eating banana suckers and pineapples. That condition needs the cooperation of all parties, particularly the customary village, to take care of the sacred buffaloes.

Lately, the beauty and uniqueness of the settlements in Tenganan Pegringsingan Village attract some young brides and grooms to have a pre-wedding photo session there. It certainly is an exciting development that requires a more detailed regulation concerning where people can and cannot do photo sessions so the village can gain higher income and more popularity from such activity. Increasing numbers of shops in the parking area to the south of the village are expected to improve the locals' welfare as per a principle of

ecotourism, which is doing traditional activities amid the locals' daily routines. Newlywed couples are free to choose the place where they will live among the available plots. They usually choose a plot in Banjar Kauh because of its strategic location. There, they can sell crafted items to domestic or foreign visitors with ease.

In general, every customary village in Bali has awig-awig (law and regulations) as the formal manifestation of customary law, applicable only in the customary village's territory. Tenganan Pegringsingan Customary Village, one of the ancient villages (*Bali Aga*), also has its awig-awig, which aims to maintain the wholeness of the village.

The customary rules or awig-awig, now stored in Bale Agung, were written based on memories of the people of Tenganan Pegringsingan and reapplied since the Year 1874 *Isaka* or 1925 AD. Before that, Tenganan Pegringsingan actually had an awig-awig already. However, a fire burned the houses, the *Kahyangan* temple, the *Puseh* temple, and *Bale Agung* in 1841 AD or 1763 *Isaka*. The fire also destroyed inscriptions and the village's awig-awig.

The awig-awig has 61 clauses overall. Explicitly, there are 4 clauses concerning the macro scale (the house), which are clauses number 19, 23, 35, and 43. Those rules are presented in detail in the following:

19) If a member of the customary village is experiencing difficulty concerning the yard for residential house, and the immigrant population (Banjar Pande) is more than 17 *karang*, then that member has the right to move the immigrant.

23) Anyone who gets a yard and takes anything that grows on that yard and includes them in a ceremony, which is conducted every *sasih kapat* in *Bale Agung*, must hand over cooked rice the size of *acatu* (a measuring device made of coconut shell) weighing 800 Chinese hollow coins, and 66 hollow coins. These items are received by the village at the ceremony. If they cannot afford it, the village will cover the cost.

35) Immigrants in Tenganan Pegringsingan are given a residential area (17 *karang* (plots)) in Banjar Pande, in the north of the banyan tree, in the south of the banyan tree located in the east of the road to the ravine in the south. If they are experiencing difficulty concerning house yards, they can borrow the yards in Banjar Tengah or Banjar Kauh. If the people of Tenganan Pegringsingan Customary Village are experiencing difficulty regarding house yards, they have the right to move the immigrants; and villagers who join a discussion in *Bale Agung* must inform all of their obligations. If the immigrants refused to do so, the village would drive them out. The immigrants are not allowed to bring

anything but themselves when leaving the village. The immigrants are given the task of keeping (maintaining) the village's *gamelan* (*gong*), complete with all the equipment. All of which are worth 290.000 hollow coins. If any unwanted incident occurs to the gong, the village will ask the immigrants to pay for damages. Such is the agreement between the village and immigrants in Banjar Pande.

43) Regarding *ngapes kahapes* (clamping/flanking) the yard, those who still have family relations (from paternal line, maternal line, or cousins) must not occupy houses that flank a yard. If they happen to choose places that flank a yard, the one that resides later must yield and find another place. Furthermore, between siblings, the older ones have the right to live in the north of the village while the younger ones live in the south. Anyone violating this rule will be fined 10.000 hollow coins. In a dispute, those who are proven to be violating the rule (the losing party) pay the fine. However, the winning party still has to pay the officers (*saya desa*) that present the violation with 1.000 hollow coins for their help. This reward is collected by the village's clerk (*penyarikan desa*) as is in effect (Parimartha, 1971).

As one of the ancient villages in Karangasem Regency, Tenganan Pegringsingan has institutions in the form of the customary village and administrative village that regulate the lives of its people. Compared to the administrative village, the customary village has a strong authority and is feared by its people.

As a small community, the people of Tenganan Pegringsingan Customary Village are organized in social unity, sharing a responsibility to maintain the sanctity of the village. The nature of their pattern of living is collective, traditional, agrarian, homogeneous, and religious, and members of the village function for the village's interest.

To be a member of the core village (*kerama desa suci*), one should have the ideal marriage as per the village's custom. The requirements that make a marriage ideal are as follows. The husband and the wife must not have physical and mental disabilities. The marriage must be endogenous. It means, both the husband and the wife must come from within the village. Polygamous marriage is not allowed. Both the husband and the wife must be members of *sekeha teruna-deha* (organizations for young men and women) in their youth.

One's marriage order determines his position in the structure of the customary village membership. Overall, this structure consists of several seats:

a. *Luanan* (5 people): advisors and supervisors who oversee the village government, a highly respected position. If the *Luanans* are about

to attend any customary village meeting, they must be fetched directly at their homes by *Saya Arah*.

b. *Bahan Roras* (12 people): 6 of *Bahan Roras* are called *Bahan Duluan*, the *kelian* of the customary village, who plan and handle the daily government. At the helm of these people are *Tamping Takon* (2 people). The other 6 people are called *Bahan Tebenan*. They are the candidates for the *kelian* of the customary village and act as *Bahan Duluan*'s assistants.

c. *Tambalapu Roras* (12 people): 6 of them are called *Tambalapu Duluan*, and the other 6 are called *Tambalapu Tebenan*. They are in charge of

delivering orders (work leaders). This duty is handled by four people and rotated every one month.

d. *Pengeluduan* (*Tambalapu* and below) act as implementers. In particular, they are in charge of *ngalang* (looking for produces from coconut and banana trees in the village's farms). New members of the customary village will always occupy the lowest position, the *Pengeluduan*.

e. *Nandes* (1 person) is responsible for maintaining the village's cleanliness and equipment. *Nandes* is a resident of Banjar Pande.



**Figure 3:** One of Tenganan Pegringsingan's traditional clothes (left) and *Bale Buga* (right).

Besides social unity based on the unity of residential area, there are several kinds of unity based on gender, founded to achieve a specific goal. This organization can be temporary (for one year), such as *meteruna nyoman*, or permanent (for years). Permanent organization can be passed down from one generation to the next. Examples of this type of organization are the organization of young men (*sekeha teruna*) and the organization of young women (*sekeha daha*). Being a member of these organizations is an obligation, as membership has its functions and meanings in terms of social, economic, educational, and ritual aspects. Membership in these organizations also determines one's position in the village's membership structure.

#### IV. CONCLUSION

Based on the objectives of this study and the discussion presented previously, the researcher concluded as follows. The manual of spatial preservation of settlements for ecotourism development in Tenganan Pegringsingan Village is related to the preservation strategy and the

responsible party. The strategy is divided into the macro scale (the village) and the micro scale (the residential home). The responsible party is divided into the customary village (*desa adat*) and the administrative village (*desa dinas*). Socialization to the community should be executed as soon as possible by involving the customary village, the administrative village, and a third party.

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